

Mozambique – VA for 1998/99.

Mozambican government, Donors and NGO communities have been involved in a series of initiatives to improve policy interventions in the area of food security. One of the mechanisms devised, among others is the creation of a multi-sectoral group for vulnerability analysis and mapping within the broader food security and nutrition policy and strategy development. A comprehensive national food security and nutrition strategy and a national disaster management policy have been developed and will soon be approved. The results of vulnerability analysis will directly contribute to this and other initiatives.

This is the second VA for Mozambique, following the 1997/98 VA that was finalized in March 1998.

This initiative is though the second attempt to carry out a collaborative VA for Mozambique and reflects the recognition by participating institutions that food security and nutrition issues are multi-sectoral and that collaboration across sectors is essential in order to develop a common framework of analysis which can assist in identification and implementation of program and policy interventions.

The VA exercise for the current year included the following schedule:

Data collection from May to June, including reports from crop assessment mission, early warning rainfall and production reports, price data from MSU food security project, price and food availability information from the Ministry of Commerce, population data from the Ministry of Planning, and district profiles from the Ministry of Health, NDVI from FEWS and emergency and food aid information from WFP.

This report is a result of collaboration of the following institutions:

Ministry of Agriculture and Fishery, Ministry of Health, Ministry of Planning and Finance, WFP, FAO, MSU, FEWS/USAID.

Specific Objectives of the Current VA

The VA aims to identify areas and population groups most vulnerable to food insecurity and specific nutritional deficiencies and problems. More specifically, the objectives are the following:

- Define food availability and food access conditions at district level in Mozambique for 1998/99 marketing year.
- Assess physical and socio-economic conditions that may influence crop production as a back ground to understand food availability and access issues
- Assess domestic resources and coping strategies to provide context for the management of food deficit at district level
- Provide an objective basis for measuring and understanding of potential shocks
- Provide basis for prioritizing where to focus food security monitoring and interventions during 1998/99

Methodology

In order to achieve the above objectives the following methodological approaches are followed.

- Assessment of land use, food systems of Mozambique, and national and provincial trends in food availability.
- Assessment of conditions for agricultural production and factor operating in the current agricultural season

- Assessment of the contribution of staple food production to household food access
- Assessments of the contribution of domestic resources of districts to household food access.
- Assessment of future risks such as draught and flood.

I – Steady improvement in food availability

For many years Mozambique has been a dependent on food aid as a result of a long and destructive war, that had an immeasurable impact on the rural economy. Basic economic conditions, including, physical infrastructures, were heavily destroyed, affecting, therefore the economy as a whole. The policy environment remained inadequate for many years and was characterized by market and price controls.

The dramatic changes on the policy environment and policy reforms adopted after 1994 elections have yielded positive outcomes in the macro economy of the Country. The growth of the economy, has averaged around 8% for the last four years, inflation rates were cut from between 70% – 80% to around 5% - 8% in the last three years. Price liberalization and market reforms, coupled with a progressive policy of rehabilitation and improvement of roads and basic infrastructures have enabled higher market participation, a relative degree of competition and integration between surplus and deficit areas. Agriculture is still dominant to the GDP accounting for about...70%???

Around 78% of the Mozambican population is rural and agricultural based population with about 2,6 millions of agricultural holdings of which maize is the most important. Of the total 4.6 million hectare of cultivated land, the family sector accounts for 98%. This is only about 13% of the total arable land of the entire country. Main feature of the Mozambican agriculture is subsistence agriculture where more than 90% of the structure of land use is made up of cereals, pulses, and cassava. Female headed households account for about 15% of the total rural families and have the highest ratio of land-less (around 2%) and smaller holdings (around 42%).

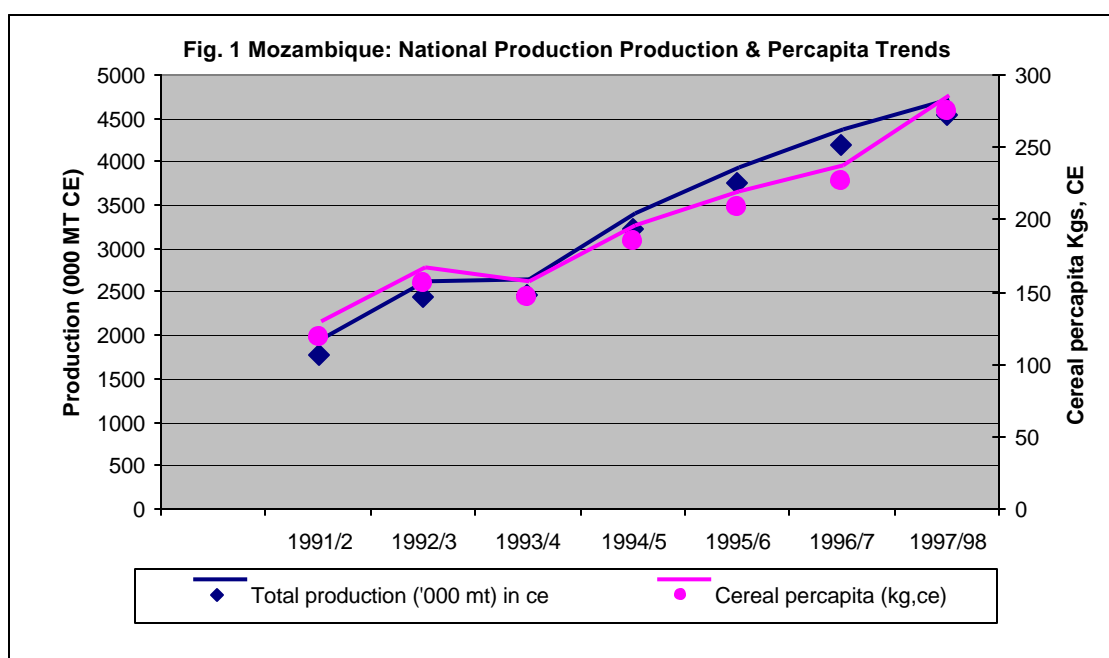
2 – National food availability trends.

National Production Trends : production trends have continued to rise consistently over the past years, as presented in Table ---. As noted in the 1996/97 VA report, comprehensive trend analysis is limited by the span of data availability and its reliability for analysis of trends. The 1991/92 and 1992/93 production figures are unlikely to serve as “base years” to measure underlying trends in production due to the fact that 1991/92 was a drought year and 1992/93 was immediately after drought. These years are excluded from the analysis as the drought episode disturbs the underlying trends. Thus, comparison of change in the national production pattern is begins from the 1993/94 season. Result of five years production comparison suggests that national production has consistently increased from 31.6 per cent in 1994/95 to 85.1% in 1997/98-production season. This has been a record level improvement in production outputs for the country in recent years. Food security implications of these improvements will be discussed in a separate section. Nevertheless, the country has been able to export sizeable amounts of surplus both through formal and informal (cross-border trade) exports. The market sector analysis will revisit these aspects later in the analysis (see section -----).

Table ---. Comparison of production data for Major crops (cereals, pulses and cassava), 1991/92 – 1997/98

Province	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8
Cabo Delgado	203,158.1	308,675.7	337,514.1	431,205.3	437,731.7	457,705.9	528,303.2
Niassa	92,101.6	163,308.4	145,304.3	230,623.8	263,152.6	291,223.5	289,410.5
Nampula	1,021,541.3	967,855.0	836,970.0	1,121,362.6	1,297,915.6	1,445,180.0	1,499,007.1
Zambezia	296,977.0	433,832.3	536,705.6	774,494.9	843,599.5	946,635.8	1,072,734.3
Tete	15,973.0	120,967.3	74,363.1	61,082.4	130,953.6	177,486.0	196,832.2
Manica	4,738.7	110,437.1	123,037.7	98,077.2	185,010.1	192,803.0	191,188.7
Sofala	15,715.0	74,415.5	121,597.7	148,710.1	166,295.8	165,701.0	200,793.2
Inhambane	71,904.2	147,111.2	179,825.9	237,607.9	291,242.9	279,411.0	304,402.7
Gaza	36,481.4	72,672.0	80,953.3	84,307.7	97,758.4	171,384.9	197,587.2
Maputo	7,410.8	41,128.7	17,836.1	42,292.8	39,557.0	68,651.8	62,296.6
National	1,766,000.9	2,440,403.2	2,454,107.7	3,229,764.5	3,753,217.2	4,196,182.7	4,542,555.8
% change from base year 1993/94				31.6	52.9	71.0	85.1

In the sum, while production patterns suggests a substantial improvements throughout the country, there are several issues that readers must take into account. Primarily, as the following sections discuss, the nutritional and food security impacts of these improvements have not been as significant as the national rise in production. Improvements in household level nutritional and food security is constrained by, primarily, problems in the distribution system. This implies that road and market access for many parts of the country must be addressed as a matter of priority to encourage sustained growth and corresponding impacts on social and economic welfare of specific groups of people. Secondly, there must be a concerted effort to sustain the prevailing positive trends through heightened commitment of policy-makers and development practitioners, particularly in rural infrastructure as well as relevant technological packages to make the agricultural sector competitive in the medium and long-term.



The civil war poses the single most important obstacle to a detailed comparative agricultural trend analysis. Data during the civil conflict was difficult to obtain and estimates were based on a number of assumptions, to allow decision making, especially for emergency purposes. Access to the districts was restricted to the towns and continuous population displacement was reported in the rural area.

Food aid played a critical role to guarantee food availability in many places of Mozambique. As the table below indicates, significant proportions of food aid were deployed to account for most of the food needs. In 1992/93, a combination of the drought and the war resulted in food aid proportion of about 71% the national production. At the present, food aid plays a role as a safety net for emergency purposes for strictly determined areas within a district.

Table 1: Proportion of food aid, commercial imports & national food production in Mozambique (1989 / 1997) in Mt. (From VA)

Year	Food aid (commercial & emergency) Total cereals	Commercial food imports	National food production	Food aid as % of national production
1989/90	470,000	0	1,072,000	43.8
1990/91	587,700	0	1,318,000	44.6
1991/92	653,500	0	1,191,800	54.8
1992/93	788,900	70,000	1,095,900	71.9
1993/94	370,617	86,700	1,204,417	30.8
1994/95	418,100	105,000	1,340,100	31.2
1995/96	233,800	153,700	1,476,000	15.8
1996/97	32,100	100,000	1,507,100	2.1

Steady improvements started in 1995/96 when resettlements were completed and population movements ended. A reasonable coverage of the information system was initiated and data from the district could be assessed. The reasons for good national agricultural performance are related, among others, to positive policy reforms, above average rainfall and a trustable peace and security environment from 1994, allowing for resumption of farmers to normal life. The most important, however has been the continuous restoration and rehabilitation of communication and transportation infrastructures, including restoration of basic primary road and rail links throughout the country, allowing for market operations. Extensive extension support programs, through NGOs and Government have enabled farmers to increase the area cultivated and harvested. The extension program included reasonable distribution of seeds and tools that allows a gradual replacement of the genetic material eroded during the war. Although it has been difficult to agree on the exact figures, it is accepted, and evidences indicated, that the country at national level is moving from food deficit to surplus for the last three years.

Table 2 : Trends in area cropped and output in Mozambique (Adopted from NEWU)

	Cultivated area				
	93/94	94/95	95/96	96/97	97/98
Maize	940	1080	1113	1199	1248
Sorghum	383	430	445	474	480
Millet	74	85	90	99	101
Rice	121	130	144	174	181
Beans	328	365	375	401	408
Groundnut	238	262	269	281	286
Cassava	908	986	993	999	1015
	OUTPUT (000 ton)				
	93/94	94/95	95/96	96/97	97/98
Maize	526	734	947	1042	1124
Sorghum	164	243	249	262	318
Millet	29	35	42	44	53
Rice	98	113	139	180	191
Beans	95	134	141	153	191
Groundnut	74	102	117	126	143
Cassava	3294	4178	4734	5337	5639

Seasonal Production Changes: Overall, agricultural production has recorded an increase of 8.4 % growth relative to previous year's production. However, production growth has not been evenly distributed throughout the provinces. Some provinces recorded a higher level of growth while others recorded decline in production. The following table presents total production and percentage changes in production by province comparing current with previous year's production. As can be seen, most provinces recorded a substantial production increase compared to last year, Manica 30.6%, Gaza 16.7%, Cabo Delgado 16.5 %, Zambezia 13.8%, Tete 10.7%, Inhambane 7.9% and Nampula 5.1.7%. However, some provinces show decline in the performance of production output, notably Sofala (11.3%) and Maputo (10.5%) recorded lower production than the 1996/97 production. Niassa province made no change in production.

Table ---: Provincial Comparison of 1997/98 with 1996/97 Production (in million mt of KCAL)

Province	1996/7	1997/8	% change
Manica	49.00	64.00	30.61
Gaza	48.00	56.00	16.67
Cabo Delgado	127.00	148.00	16.54
Zambezia	261.00	297.00	13.79
Tete	56.00	62.00	10.71
Inhambane	76.00	82.00	7.89
Nampula	39.00	41.00	5.13
Niassa	90.00	90.00	0.00
Maputo	19.00	17.00	-10.53
Sofala	62.00	55.00	-11.29
National	1,187.00	1,287.00	8.42

3 – Food availability at provincial and district level

When desegregating production by province and district, it shows an uneven distribution of the output. Historically, the central and northern regions have been the most adequate for food production and most of the southern region is deficit, with the exception of the river valleys and the southeast areas along the coastline. Average production in the northern and central regions, would be sufficient to account for current national consumption requirements. The most important determinant of these variations is the climate; in normal years, average rainfall in the surplus areas provide for sufficient and well distributed moisture during the crop season, while in the southwest region average rainfall, including in good years, is bellow crop requirements. However, these dry areas are the most adequate for animal production, as they seem to be less affected by pests and diseases.

An understanding of food availability rural areas of Mozambique implies a discussion of the food self provision capacity of the households from own production. Most rural households as discussed elsewhere, produce primarily for their own consumption. Therefore, agricultural conditions and crop performances are a significant base to derive indications of the basic food availability and access at district level. It could be assumed that in districts of reasonable self-provisioning capacity, food access problems are minimized as households can satisfy most of

their food needs from own production, and use surplus to earn cash for supplements. Agrarian households as stated above are frequently reported to be dependent on crop production for their consumption. The current Vulnerability Analysis for Mozambique states that “this assumption considers that 2200 kcal per person per day (a total of 220 kg/year per person) will be provided through direct own production. Thus, food availability of a household would be derived from simple per capita grain availability.

Another assumption is that rural households partly depend on crop production and partly on other sources of income to sustain consumption needs. In interpreting the relative roles of crop production, other sources of income should be taken into consideration. This is particularly true when we take the different sources of livelihood support functions as explained by different food systems of the country. While little empirical evidence is available about the relative role of the different forms of income and life support system, current thinking suggests that the crop sub-sector provides 80% of household consumption needs while 20% derived from the non-cereal sectors at an aggregate national level. This considers 1700 kcal (80% of total needs) derived from crop production and the remaining 20% of needs obtained from other sources. Total annual crop need is estimated at 170 kg per person. However, there are local variations of the relative contribution of crop and non-crop sectors to household livelihood system due to differences in their location in a food system. Some are more dependent on crops while others depend heavily on other forms of income such as fishery, livestock and trading.

The third method assumes that household needs are not just food consumption, but includes wide range of primary needs. These include basic utilities expenditure, agricultural investment (seeds, tools, inputs), and other dues (debts, customary payments). This gives a total of 330 kg per person per annum including food consumption (the proportion of other needs relative to food being 33%).”

As a result of continuous security improvement households in the central and northern regions have been able to sell part of their produce across the border. Although it is still to be documented, there is a consensus that a huge number of farmers have been involved in this trading and have, therefore earned an important amount of income. This is supported by the local information indicating higher numbers of farmers involved in cross border trade in the last crop season. Additional income to farmers have resulted from sale of cash crops, including tobacco, cashew and cotton, under contract farming with private and joint venture companies.

Animal production has increased at faster rates providing for alternative food and income, especially for households in the semiarid zones of the southern region and parts of central region with low agricultural potential.

Assessment of Food Access

District Level Staple Food Production

Analysis of district food availability for 1997/98 season, as did the 1996/97 VA report, uses the same assumptions (principles) of food per capita, i.e. 1,700 kcal as a minimum threshold, and the four categories of districts by their capacity for self-provisioning (see VA report 1997/98). In this report a seasonal comparison of production between 1996/97 and 1997/98 is

made to provide an understanding of changes that have taken place in terms of production outputs and per capita availability¹.

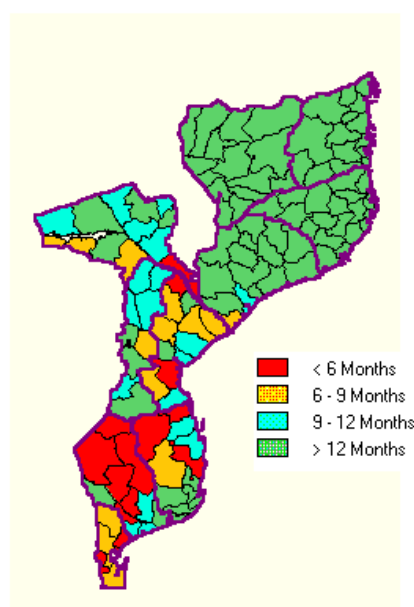
Table --- 1998 Summary, Number of months and % Distribution of Districts by their self-provisioning capacity

No. of Months for self-provisioning	No. + % distribution of districts , based on old population estimates		Status based on own production
< 6 months	15	(11.7%)	Very poor
6 - 9 months	14	(10.9%)	Poor
9 – 12 months	20	(15.6%)	Low to average
≥ 12 months	78	(60.9%)	High (surplus)

As table shows, 15 districts (11.7%) fall in the ‘very poor’ category of districts, 14 districts (10.9%) fall in the ‘poor’ category, 20 districts (15.6%) in the ‘low to average’, and the remaining 78 districts (60.9%) fall in the category of ‘high’ or surplus producing group.

The number of districts in the ‘very poor’ and ‘poor’ category has reduced compared to 1996/97 season. Also, the number of districts in the ‘high’ or surplus-producing category has also improved.

District Food Availability by Month (est. pop.): 1998/99



(i) *Districts with very poor staple food production (less than 6 months)*

During the period under review 15 districts fall in the category of ‘very poor’ food self-provisioning capacity. The profiles of these districts are that they are located in dry/semi-arid and river basin food system characterised by low staple food production. These areas are periodically hit by risks such as inadequate moisture distribution, flood, pest and inadequate supply of agricultural inputs. **[Section on risk factor must be complete before a complete interpretation for this section and this table].**

Table --- Status and comparison of Districts with very poor staple food production, 1997/98

No.	Districts	Number of Months self-provisioned		% changes from 1996/7	Risk factors
		1998	1997		
1	Chigubo	2.42	4.75	-49.1	Moisture stress
2	Chokwe	2.84	2.52	12.7	Moisture stress
3	Massangena	3.19	3.85	-17.2	Moisture stress
4	Marracuene	3.53	6.71	-47.4	Water logging
5	Mabalane	3.88	4.64	-16.4	Moisture stress

¹ Note that project population figure is used until the census population data is verified.

6	Manhica	4.16	7.78	-46.6	Water logging
7	Mutarara	4.62	2.43	90.2	Moisture stress
8	Chicualacuala	4.63	5.13	-9.8	Moisture stress
9	Govuro	5.14	6.49	-20.8	Water logging
10	Chemba	5.37	4.63	15.9	Water logging
11	Buzi	5.56	8.24	-32.5	Water logging
12	Massinga	5.63	12.62	-55.4	Moisture stress
13	Guija	5.65	6.91	-18.3	Moisture stress
14	Mabote	5.69	5.43	4.8	Moisture stress
15	Namaacha	5.79	8.24	-29.7	Water logging

(ii) Districts with poor staple food production (6 to just less 9 months)

Fourteen districts fall under the category of poor food self-provisioning capacity. These districts also fall in partly in dry/semi-arid, river basin and coastal food systems. In comparison to 1996/97 season, some districts exhibit improvement while others have actually lost their ability for food self-provisioning (see Table). Current season's risk event include excess rainfall that reduced yields in many districts through water logging and in some cases actual flooding, and moisture stress in districts where planting took place late in the season as the rainfall stopped earlier during the campaign.

Table --- Status and comparison of Districts with poor staple food production, 1997/98

No	Districts	Number of months self-provisioned		% changes from 1996/7	Risk Factors
		1998	1997		
1	Moamba	6.27	6.62	-5.3	Moisture stress
2	Changara	6.49	6.49	0.0	Moisture stress
3	Magude	6.79	8.89	-23.6	Moisture stress
4	Matutuine	6.83	8.45	-19.2	Moisture stress
5	Gondola	7.32	17.25	-57.6	Moisture stress
6	Cheringoma	7.39	6.9	7.1	
7	Chinde	7.42	8.79	-15.6	Water logging
8	Chibabava	7.60	7.28	4.4	
9	Gorongosa	8.27	8.84	-6.5	
10	Boane	8.59	4.78	79.7	Water logging
11	Marromeu	8.67	8.14	6.5	
12	Maringue	8.75	7.19	21.6	Water logging
13	Magoé	8.75	4.47	95.7	Water logging
14	Funhalouro	8.94	9.85	-9.3	Moisture stress

(iii) Districts with low to average staple food production (9 to just less 12 months)

Twenty districts fall under the category of low to average food self-provisioning capacity. These districts are located in various food systems, and were affected by various risk factors during the season (see Table)

Table --- Status and comparison of Districts with low to average staple food production, 1997/98

No.	Districts	Number of months self-provisioned		% changes from 1996/7	Risk factors
		1998	1997		
1	Inhassoro	9.13	8.68	5.2	
2	Muanza	9.19	7.69	19.6	Water logging
3	Tambara	9.20	12.99	-29.2	Water logging/moisture stress
4	Dondo	9.29	14.22	-34.6	No information
5	Vilankulo	9.30	9.3	0.0	No information
6	Bilene - Macia	9.40	9.34	0.6	No information
7	Zumbu	9.67	10.19	-5.1	
8	Angonia	10.14	17.58	-42.3	Combination of factors + move for cash crop
9	Xai-Xai	10.18	5.03	102.4	Good year
10	Chibuto	10.19	8.79	16.0	Good year
11	Machanga	10.49	9.58	9.5	Good year
12	Moatize	10.76	11.31	-4.9	Combination of factors
13	Nicoadala	10.95	13.53	-19.1	Water logging
14	Barue	10.95	20.44	-46.4	Water logging
15	Mossurize	11.07	15.59	-29.0	Water logging
16	Inhassungue	11.20	13.31	-15.8	“average” year
17	Chifunde	11.57	14.39	-19.6	
18	Guro	11.60	23.19	-50.0	Moisture stress/water logging
19	Macossa	11.86	16.19	-26.8	
20	Chiuta	11.93	13.98	-14.7	Combination of factors

(iv) Districts with high staple food production (more than 12 months)

Surplus producing districts are located mainly in planalto/midlands and planalto/highlands characterised by surplus production. During the current season, most districts in Niassa, Cabo Delgado, Manica and Tete provinces fall in this category. Also, some districts in Inhambane and Sofala enjoyed surplus production.

1997/98 Season District Status of Self-Provisioning Capacity

ID	Districts	No of Months of Self-provisioning		
		1997/98	1996/97	% change from 1996/97
110	Chigubo	2.42	4.75	-49.10
111	Chokwe	2.84	2.52	12.69
115	Massangena	3.19	3.85	-17.15
120	Marracuene	3.53	6.71	-47.40
113	Mabalane	3.88	4.64	-16.37
119	Manhica	4.16	7.78	-46.56
72	Mutarara	4.62	2.43	90.20
109	Chicualacuala	4.63	5.13	-9.83
97	Govuro	5.14	6.49	-20.84
87	Chemba	5.37	4.63	15.94
85	Buzi	5.56	8.24	-32.55
101	Massinga	5.63	12.62	-55.42
112	Guija	5.65	6.91	-18.26
106	Mabote	5.69	5.43	4.84
123	Namaacha	5.79	8.24	-29.72
122	Moamba	6.27	6.62	-5.25
64	Changara	6.49	6.49	0.00
118	Magude	6.79	8.89	-23.61
121	Matutuine	6.83	8.45	-19.21
76	Gondola	7.32	17.25	-57.58
88	Cheringoma	7.39	6.9	7.07
50	Chinde	7.42	8.79	-15.64
89	Chibabava	7.60	7.28	4.41
91	Gorongosa	8.27	8.84	-6.48
117	Boane	8.59	4.78	79.67
92	Marromeu	8.67	8.14	6.47
96	Maringue	8.75	7.19	21.64
69	Magoé	8.75	4.47	95.68
105	Funhalouro	8.94	9.85	-9.25
127	Inhassoro	9.13	8.68	5.23
95	Muanza	9.19	7.69	19.56
82	Tambara	9.20	12.99	-29.16
90	Dondo	9.29	14.22	-34.64
125	Vilankulo	9.30	9.3	0.00
126	Bilene - Macia	9.40	9.34	0.63
73	Zumbu	9.67	10.19	-5.11
65	Angonia	10.14	17.58	-42.30
107	Xai-Xai	10.18	5.03	102.40
108	Chibuto	10.19	8.79	15.96
94	Machanga	10.49	9.58	9.50

71	Moatize	10.76	11.31	-4.87
48	Nicoadala	10.95	13.53	-19.10
77	Barue	10.95	20.44	-46.41
80	Mossurize	11.07	15.59	-29.00
63	Inhassunge	11.20	13.31	-15.83
74	Chifunde	11.57	14.39	-19.60
78	Guro	11.60	23.19	-49.98
83	Macossa	11.86	16.19	-26.77
67	Chiuta	11.93	13.98	-14.66
114	Mandlakazi	12.02	12.38	-2.93
86	Caia	12.09	7.47	61.89
116	Massingir	12.24	4.39	178.86
93	Nhamatanda	12.36	10.34	19.52
84	Machaze	12.62	17.24	-26.81
27	Palma	13.10	13	0.78
25	Muidumbe	13.20	12.52	5.43
10	Mecula	13.40	16.97	-21.03
58	Mopeia	13.50	12.4	8.88
70	Maravia	13.57	17.82	-23.86
75	Tsangamo	14.13	18.02	-21.61
52	Gurue	14.17	14.28	-0.75
55	Maganja da Costa	14.70	16.26	-9.58
9	Mecanhelas	14.82	15.97	-7.20
103	Panda	14.89	14.51	2.65
12	Muembe	15.33	16.85	-9.02
14	Metarica	15.35	16.45	-6.70
28	Quissanga	15.52	15.5	0.12
98	Homoine	15.74	16.19	-2.78
3	Lago	15.81	17.5	-9.65
128	da Praia	15.99	18.23	-12.31
60	Namacurra	16.24	18.43	-11.86
104	Zavala	16.28	17.78	-8.44
15	Ngauma	16.29	17.51	-6.99
68	Macanga	16.38	21.6	-24.18
20	Mecufi	16.40	16.75	-2.06
4	Majune	16.60	18.52	-10.35
102	Morrumbene	16.76	17.82	-5.94
99	Jangamo	17.28	20.52	-15.79
26	Nangade	17.38	17.15	1.32
66	Cahora-Bassa	17.47	9.88	76.79
81	Sussundenga	17.56	21.89	-19.77
62	Pebane	18.23	19.76	-7.72
6	Marrupa	18.87	20.24	-6.78
51	Gile	18.92	20.08	-5.79
5	Mandimba	18.99	20.68	-8.18

53	Ile	19.03	20.76	-8.32
16	Pemba	19.18	19.59	-2.09
54	Lugela	19.31	20.47	-5.67
49	Alto Molocue	19.91	21.02	-5.28
21	Meluco	20.08	19.55	2.70
23	Mueda	20.31	19.04	6.67
13	Nipepe	20.33	22.06	-7.85
59	Morrumbala	20.37	20.72	-1.67
11	Sanga	20.69	22.62	-8.51
100	Inharrime	21.10	23.02	-8.34
19	Macomia	21.68	21.36	1.51
2	Cuamba	22.25	24.07	-7.55
33	Malema	22.27	24.25	-8.18
79	Manica	22.32	16.93	31.86
41	Mossuril	22.85	25.22	-9.38
56	Milange	23.25	24.87	-6.52
1	Lichinga	23.29	25.49	-8.62
31	Angoche	23.99	25.95	-7.57
36	Memba	24.31	26.6	-8.60
45	Ribaue	25.08	31.68	-20.84
38	Moma	25.93	28.62	-9.38
40	Mogincual	25.95	29.03	-10.60
7	Maua	26.03	28.17	-7.60
57	Mocuba	26.10	14.95	74.57
61	Namarroi	26.70	28.57	-6.53
22	Montepuez	26.89	26.3	2.25
24	Namuno	27.47	27.27	0.72
17	Ancuabe	27.67	27.09	2.15
18	Chiure	28.14	27.84	1.06
46	Lalaua	28.19	30.83	-8.56
29	Balama	28.76	28.18	2.04
43	Murupula	28.92	32.2	-10.19
8	Mavago	30.74	33.69	-8.77
30	Nampula	32.03	38.94	-17.75
44	Nacala a Velha	32.89	36.15	-9.01
42	Muecate	32.96	36.49	-9.67
39	Monapo	33.59	36.93	-9.03
47	Erati (Namapa)	36.65	40.64	-9.82
32	Nacaroa	39.37	43.9	-10.32
35	Mecuburi	39.67	43.56	-8.94
34	Meconta	39.95	44.48	-10.18
37	Mogovolas	42.55	47.39	-10.21

Conclusions

Despite a bumper harvest this year the production output pattern confirms the prevalence of distinct agro-ecological zones. The northern with highest potential for crop production and producing surplus in “normal” years, the central region with surplus production in good years and the southern region with chronic deficit food production.

However it should be recognized that the present agricultural production data and other data (i.e. Livestock, fishery, off farm and remittances, etc) at present form do not provide a complete picture of food availability and access. Qualitative information have shown that, although food production is important for the economy, it is not the only determinant of vulnerability. The classification that follows is based on available production data, combined with other information, including, livestock, fishery, petty trading, hunting, and district food and nutrition profiles.

There are two groups of districts facing vulnerability:

I – The group of districts facing chronic vulnerability to nutritional and food insecurity. This group comprises the larger number of vulnerable districts. Two sub-groups emerge to distinguish,

- a) districts characterized by chronic food production shortfalls due to semi-arid agro-ecological condition. The market is not sufficiently well developed to respond to a decline in food availability and the ability of the poorer to purchase food is extremely limited. This group includes districts of the southern region (Mabalane, Massangena, Chicualacuala, Massingir, Guija, Chigubo, in Gaza province, Moamba and Magde in Maputo province, Mabote, Funhalouro, Massinga, in Inhambane province, Changara in Tete province, Tambara, Macossa, Machaze, in Manica province, Machange, Chibabava in Sofala province)
- b) Districts of surplus production revealing consistent high levels of malnutrition. They are located in the agro-ecologic regions, mainly the northern region. Nutrition status may be linked among others, to local food habits of food utilization, quality of health services, etc. This includes Muembe, Mandimba, Mecula in Niassa province, Mocimboa da Praia, Montepuez in C. Delgado, Murrupula, Muecate, Mongicual in Nampula, Namarroi in Zambezia, Maringue Gorongosa and Cheringoma in Sofala

2 – The group of districts facing current vulnerability due to occurrence of transitory risk factors and unexpected events. Within this group there are further classification of:

- a) highly vulnerable if the magnitude is high combined with extremely low level of preparedness. This includes Chemba, Muanza (in Sofala province), Guro (in Manica province) Matutuine in Maputo province.
- b) Vulnerable if the magnitude is high and the level of preparedness through local mechanisms is less than sufficient. In this group it is included Mutarara (in Tete province), Chinde (in Zambezia province), Manhica (in Maputo province)
- c) Low vulnerability if the magnitude is high but market and other local mechanisms are available to mitigate. This group includes Marracuene (in Maputo), Chokwe (in Gaza), Inharrime and Govuro (in Inhambane).

An important refinement should be made to recognize intra-district differences that provide for differentiated positioning within the livelihood system in a given locality. Rural communities are not necessarily homogeneous and different classes face different impact and

have different abilities to respond to a given event. Vulnerability in a given district will naturally impact more on the poorest. Evidences have indicated that female headed households, landless families, widows and families with less than the national average one hectare of land will be exposed in the first place. Poverty studies indicate that in many districts the poorest group as described above may reach 20 to 30%.